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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,419	01/15/2004	Berndt Brenner	P24717	3378
7055	7590	06/01/2006	EXAMINER	
GREENBLUM & BERNSTEIN, P.L.C.			DINH, TIEN QUANG	
1950 ROLAND CLARKE PLACE			ART UNIT	
RESTON, VA 20191			PAPER NUMBER	

3644

DATE MAILED: 06/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/757,419

Applicant(s)

BRENNER ET AL.

Examiner

Tien Dinh

Art Unit

3644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-143 is/are pending in the application.
- 4a) Of the above claim(s) See Continuation Sheet is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-11, 14, 15, 20, 24-27, 49, 50, 55, 58-63, 65-76, 97, 136, 137 and 140-143 is/are rejected.
- 7) ☒ Claim(s) 12, 13, 16, 17 and 21 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>4/2005</u> . | 6) <input type="checkbox"/> Other: ____ |

Continuation of Disposition of Claims: Claims withdrawn from consideration are 6,18,19,22,23,28-48,51-54,56,57,64,77-96,98-135,138 and 139.

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of species A, group I in the reply filed on 3/17/06 is acknowledged. The traversal is on the ground(s) that the subject matters are so closely related for examination purposes. This is not found persuasive because the applicant has not pointed out the supposed error in the restriction.

The requirement is still deemed proper and is therefore made FINAL.

Claims 6, 18, 19, 22, 23, 28-48, 51-54, 56-57, 64, 77-96, 98-104, 105-135, 138-139 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species/group, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 3/17/06.

Claims 6, 51-54, 64, and 98-104 do not read upon the elected species.

Please note that the ribs running circumferential direction is vague. From what is shown in species A, the ribs do not seem to run in a circumferential direction.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5, 14, 15, 24, 25, and 55 are rejected under 35 U.S.C. 102(b) as being anticipated by Mueller et al.

Art Unit: 3644

Mueller et al teaches a lightweight structural component (that can be oriented lengthwise and crosswise) having panel 40, side pieces made up of parts 26, 27, 40 that form an angle of 7-50 degrees, and stringer made up of parts 21-25. Please note that the head portion is element 27' in figure 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 7-11, 20, 26, 27, 49, 50, 58, 62, 63, 65-69, 97, 136, 137, 140-143 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller et al in view of Schmidt.

Mueller et al discloses all claimed parts except for the thickened region/stiffening base in the panel. However, Schmidt discloses that a thickened region in a panel where a side piece is connected to is well known.

It would have been obvious to one skilled in the art at the time the invention was made to have made the panel of Mueller et al to have a thickened region as taught by Schmidt to increase the strength of the aircraft.

Please note that the use of laser beam weld zones, friction stir weld zones, bonded join zones, machined surface, etc. as claimed are obvious parts/steps that one skilled in the art would have used to make a stronger aircraft. The applicant has not cited the criticality to these claims parts either.

Art Unit: 3644

Please note that to make the components of the component integral are steps that is obvious to one skilled in the art would have made to make a stronger structure.

Please note that the use of metal cutting, metal removal, deformed during rolling-in, etc. as claimed are obvious parts/steps that one skilled in the art would have used to make a stronger aircraft. The applicant has not cited the criticality to these claimed parts either.

Re claim 136, please note that the use of metal on a panel and stiffening element is a well known idea in this day and age to make the structure stronger. Plus to make the stiffening element integral or one piece is a well know step that one skilled in the art would have taken to make the aircraft easier to manufacture and stronger. Please also note that the bar portion first thickness is where element 121 is located. This thickness is greater than the side pieces' thickness.

Re claim 140, the distance between the two separate joint zones is greater than the first thickness. See figure 1.

Re claim 141, the distance between the two separate joint zones is greater than the second thickness. See figure 1.

Re claim 142, the distance between the two inner edges of the two separate joint zones is greater than the first thickness. See figure 1.

Re claim 143, the distance between the two inner edges of the two separate joint zones is greater than the second thickness. See figure 1.

Claims 59-61 and 70-76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller et al as modified by Schmidt in view of Lackman et al.

Mueller et al as modified by Schmidt discloses all claimed parts (including rough profile) except for reinforcing element. However, Lackman et al teaches that reinforcing element (in shape of an isosceles triangle is well known in the art.

It would have been obvious to one skilled in the art to have used reinforcing element in Mueller et al's system as modified by Schmidt and as taught by the Lackman et al to make the structure even stronger.

Re claim 60, it would have been obvious to one skilled in the art to have used a material of higher modulus of elasticity in the reinforcing element than those of the panel and stiffening element so that the aircraft can absorb more vibration and be made stronger.

RE claim 61, the use of force-locking and form-locking manner is well known steps that one skilled in the art would have taken to make the structure stronger.

Re claim 75-76, please note that since Mueller teaches a rounded off apex in the cavity and Lackman et al teaches reinforcing element that fits snugly to the cavity, once skilled in the art would have used reinforcing elements that have rounded off apex to accommodate the cavity of Mueller.

Allowable Subject Matter

Claims 12, 13, 16, 17, and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Anderson '655, Loyd '980, and Loyd '910 teach panels.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tien Dinh whose telephone number is 571-272-6899. The examiner can normally be reached on 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on 571-272-7045. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TD

Handwritten signature of Tien Dinh, consisting of a stylized 'T' followed by 'ien' and a flourish.